LEVINE, BLASZAK, BLOCK & BOOTHBY, LLP
2001 L STREET, NW., SUITE 900
WASHINGTON, D.C. 20036
PHONE (202) 857-2550
FAX (202) 223-0833

ORIGINAL
EX PARTE OR LATE FILED

October 6, 1998

RECEIVED
OCT - 6 1998
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street
Washington, DC 20554

Re: *Ex parte* contact in CS Docket No. 98-120

Dear Secretary Salas:

On October 5, 1998, the undersigned, along with Marc Berejka and Craig Mundie of Microsoft Corporation, met with Commissioner Tristani and Rick Chessen to discuss the above-referenced docket. The discussion focused on handouts reflecting Microsoft's position on digital must-carry issues. Copies of those handouts are attached hereto.

The original and one copy of this letter are being filed with the Commission for inclusion in the record of the above-referenced docket.

Sincerely,

Kevin S. DiLallo

cc: Commissioner Tristani
Rick Chessen

330.01/xpar_dtv

No. of Copies rec'd 0+1
List A B C D E

The Path to Digital Television – And Must-Carry

A Microsoft Perspective

What is the full promise of DTV?

- Digital Television (DTV) will offer consumers the benefits of both high-definition television and intelligent television as today's analog television infrastructure is replaced with digital technology.
- DTV will go well beyond the original vision of better quality pictures and sound to bring all the benefits of an "intelligent" TV to consumers such as low cost internet access, e-mail, interactive programs, video-on-demand, e-commerce and more.
- DTV must be affordable. In Microsoft's view, smart set-top boxes starting at about $300 will be the most affordable way for consumers to experience the benefits of the intelligent aspects of DTV until they can afford the additional cost of an HD-TV currently priced at around $5,000.

What can we expect in the transition?

- The initial deployment of DTV will be a trial period. The transition will have to combine over 50 years' experience in broadcasting, 25 years' experience in cable, 15 years' experience in personal computing and 5 years' of consumer use of the Internet. To manage the transition, new partnerships such as ATVEF* are being formed, and different industries are developing interoperability standards so that DTV experience will be as consumer friendly as possible.

**ATVEF founders include CableLabs, CNN, DIRECTV, Discovery, Disney, Intel, Microsoft/WebTV, NBC, NDTC Technology, NCI, PBS, Sony, Tribune and Warner Bros.*

Is there a role for must-carry?

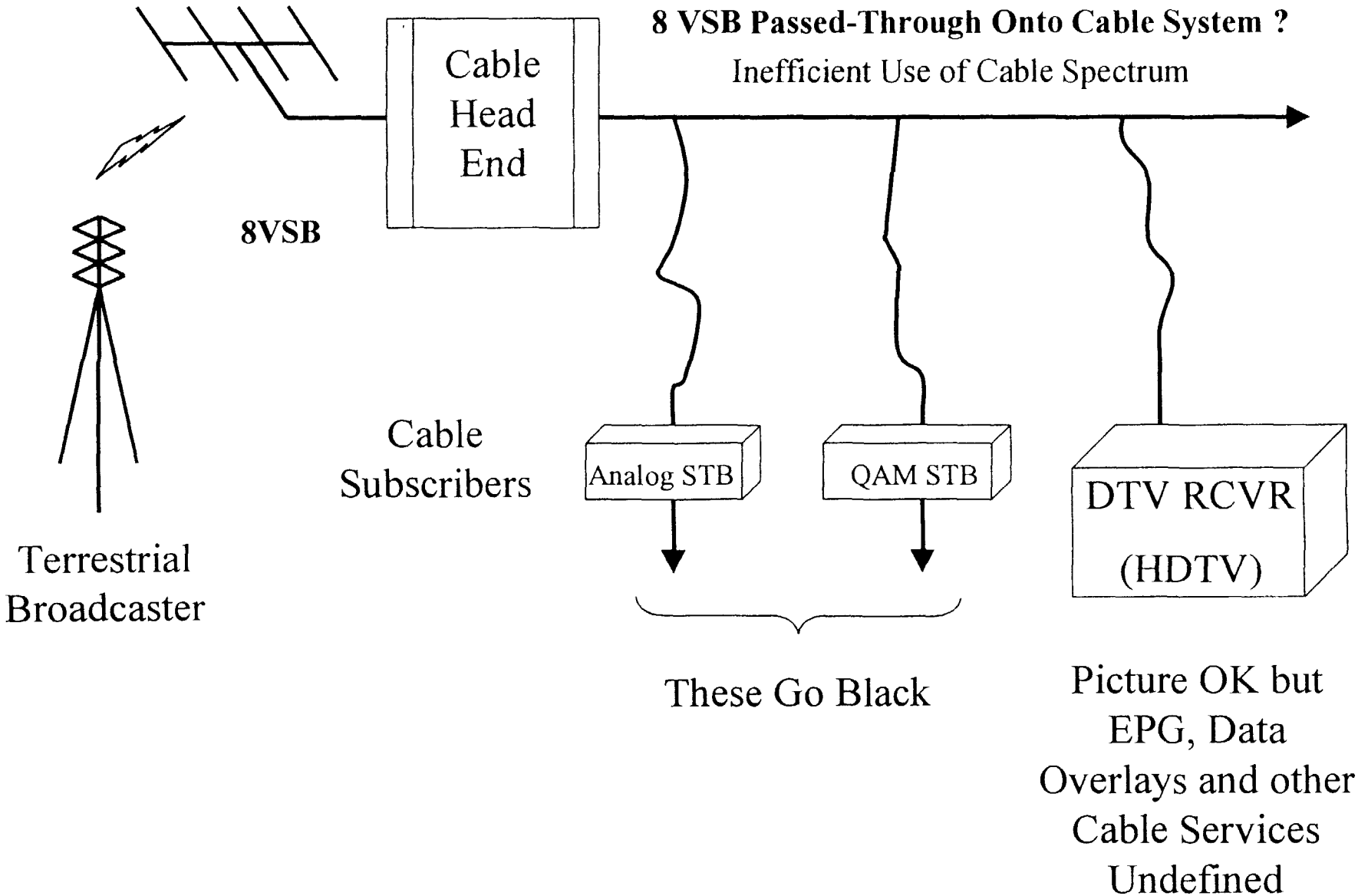
- Must-carry is not ready for prime time.
- Several key gaps remain in DTV technology for example:
  - Copy protection, which is essential for ensuring the availability of high-value content such as the movie *Titanic*
  - Support for TCP/IP data transmission through the 1394 interconnect
- The industry is still resolving critical interoperability issues that are a prerequisite to effective cable carriage of DTV programming.
  - The concept of simply "Passing-through" the broadcast signal wastes cable spectrum, raises modulation problems, requires an A/B switch, presents interconnection problems between the set-top box and the receiver, and fails to integrate broadcast and cable programming.
  - The concept of De-coding the broadcast signal in the set-top box – with today's technology -- raises modulation problems, presents interconnection issues, and greatly increases cost of the box.

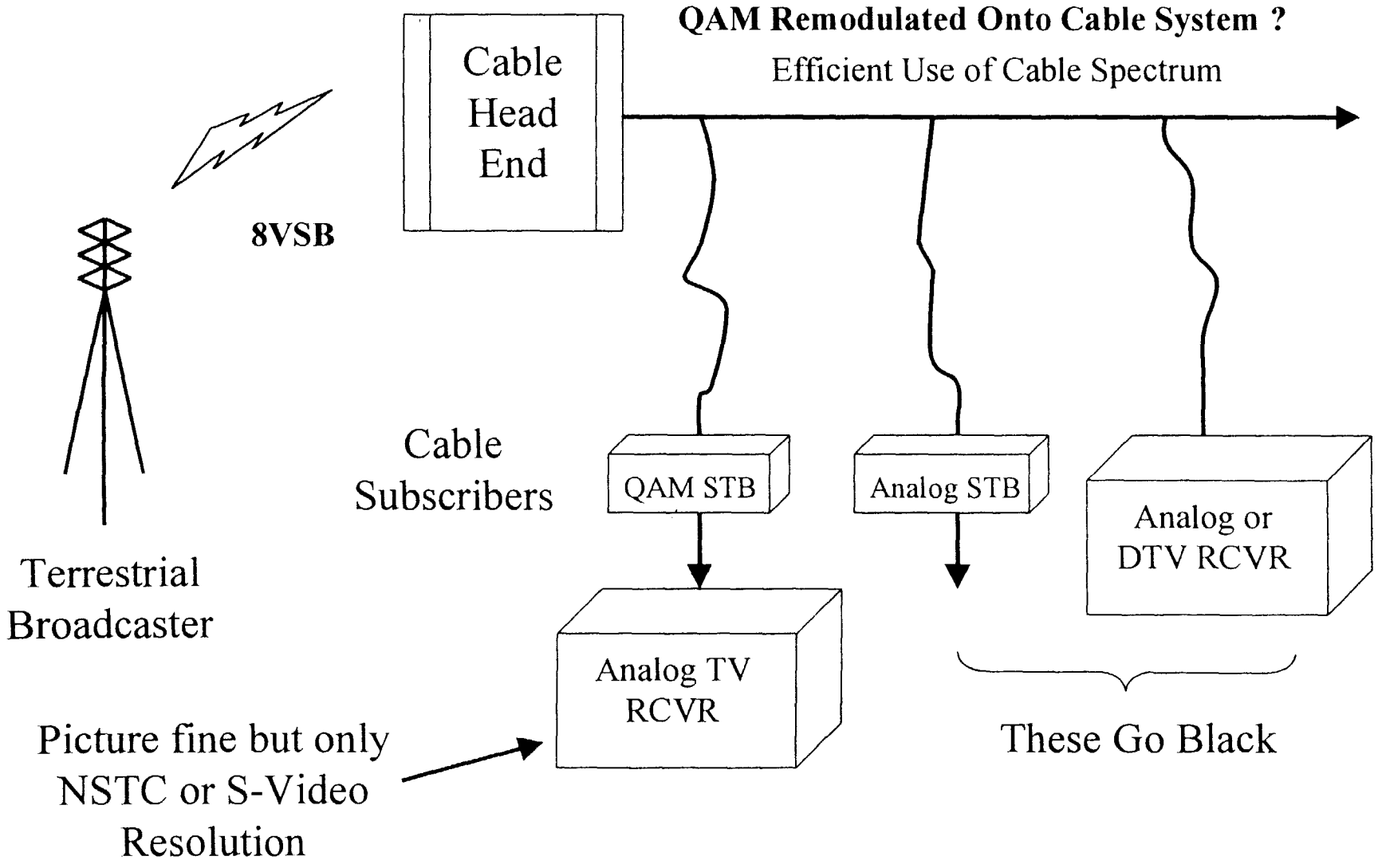
Near-term must-carry rules could cause consumer frustration slowing down the roll-out of DTV

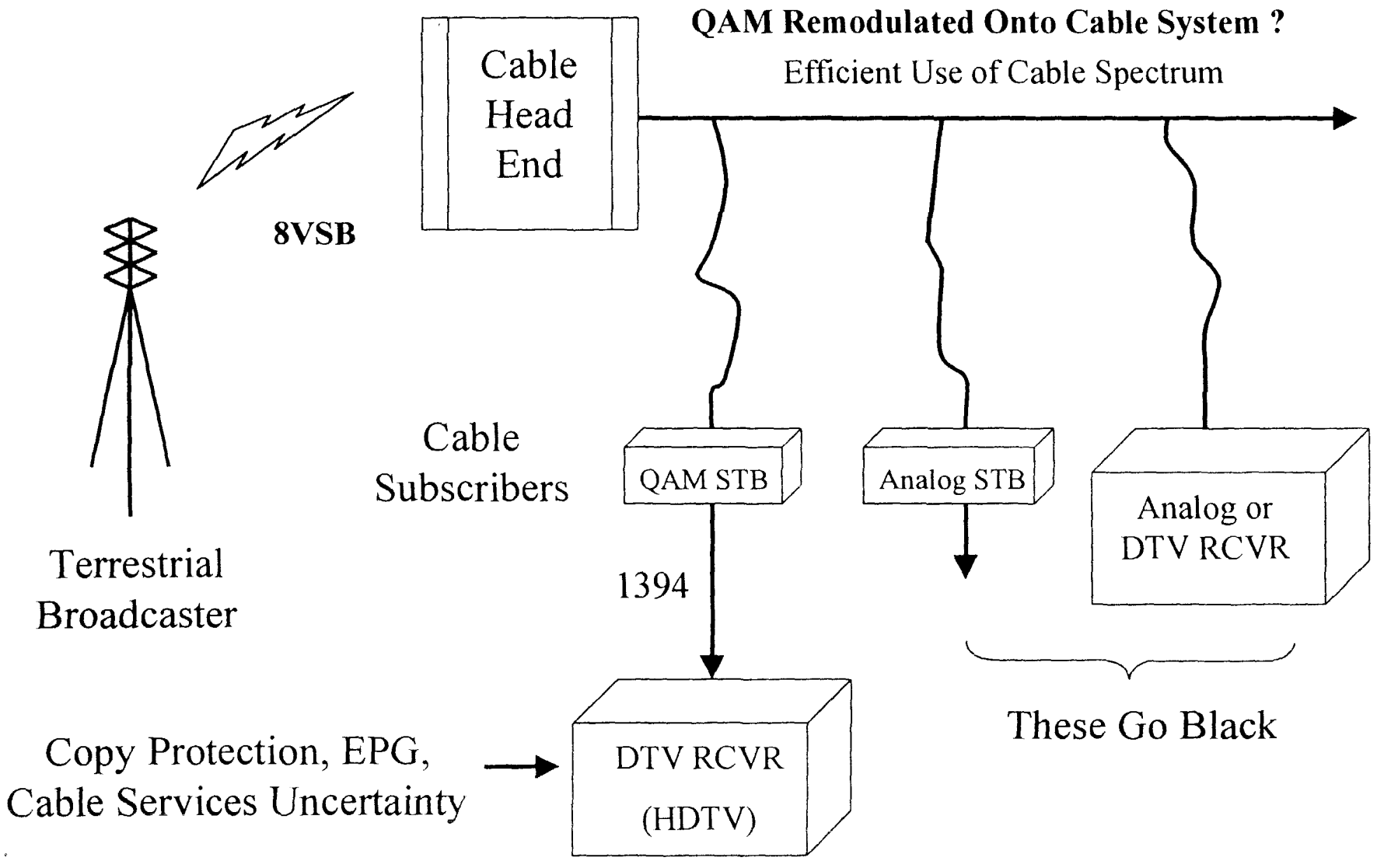
- The FCC should not create the misimpression that near-term must-carry rules could solve interoperability issues. Example: early DTV sets will be unable to de-code and display copy-protected content, such as movies, because encryption standards do not exist. A must-carry rule would not change that fact.
- The FCC should ensure that the initial installed base of DTVs does not constrain technological advances. Example: mandating cable carriage of DTV signals before copy-protection and IP data transmission issues are resolved could slow development of DTV-related video content and interactive programs that integrate video and data together.

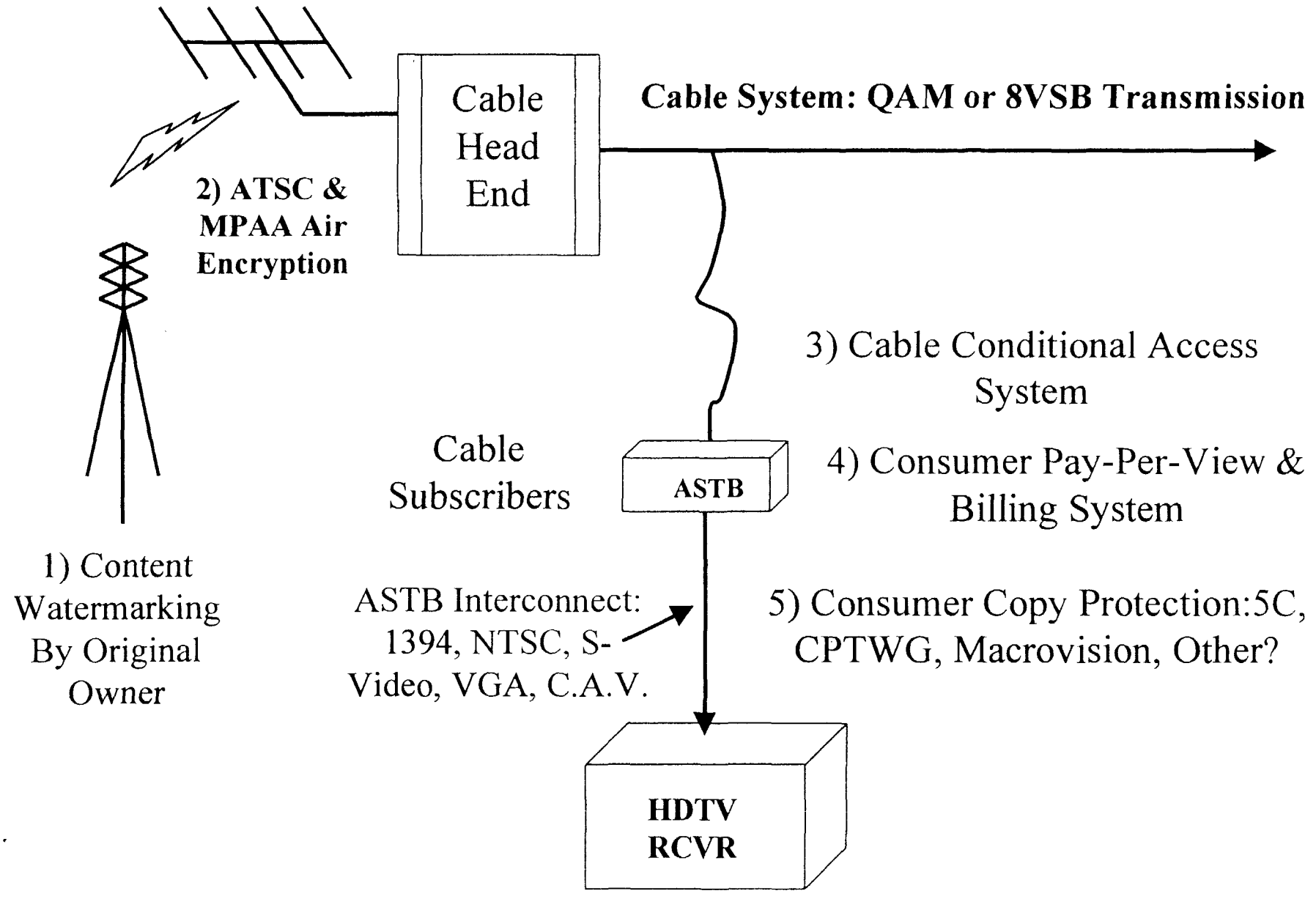
What should the FCC do to facilitate cable carriage of DTV?

- The FCC has the opportunity to help insure the technical and integration issues around providing the long-term infrastructure to support the full range of what DTV can offer are resolved.
- The technology and interoperability issues around DTV are all quite resolvable; they just require time and hard work. To the extent the FCC wants to speed the process along they can encourage cooperation at the key intersections between the various transport methods and industries (e.g. interconnects, modulation, encryption, and computer graphics) through appropriate management and process support.

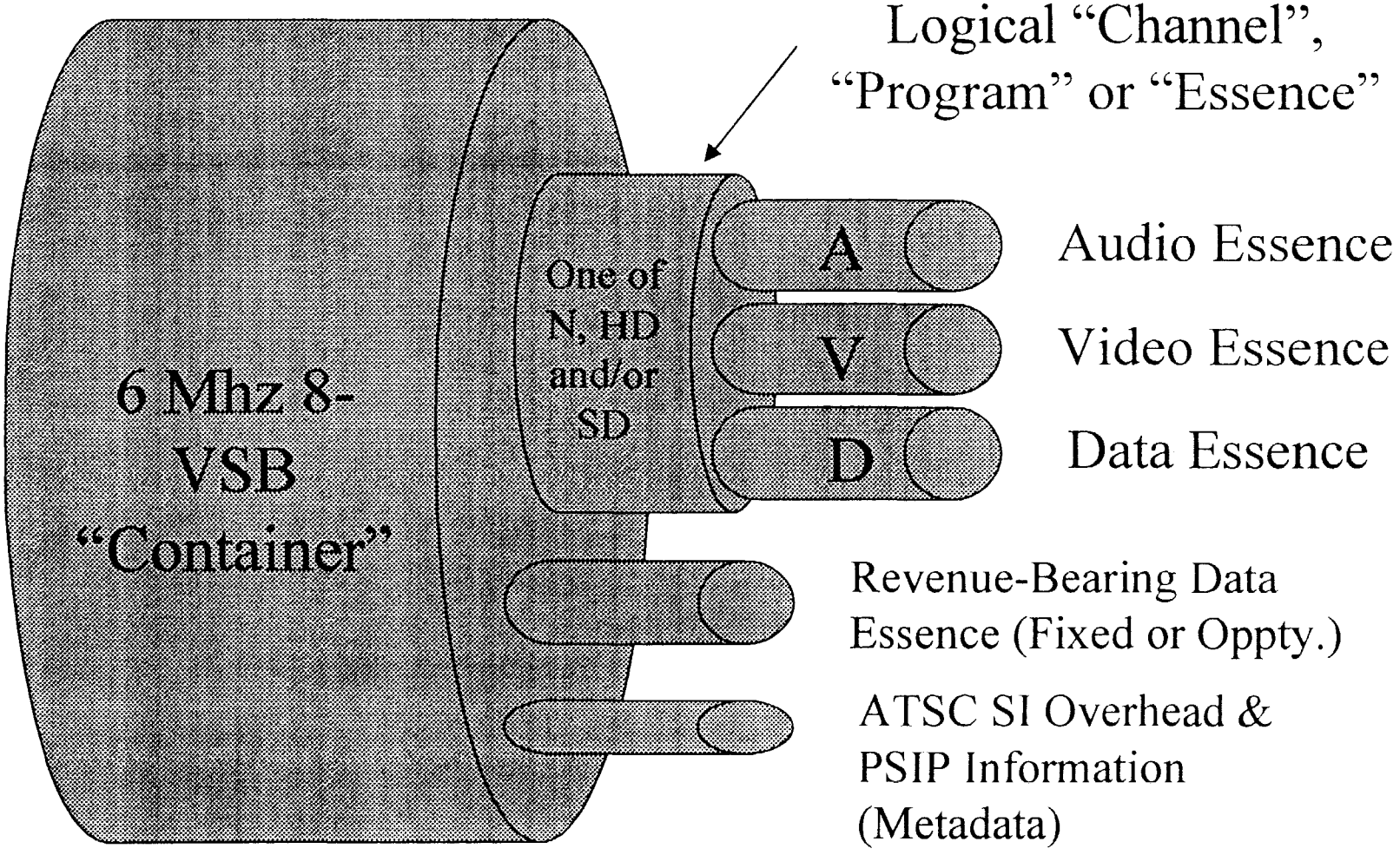

8 VSB Passed-Through Onto Cable System ?
Inefficient Use of Cable Spectrum
Cable Head End
8VSB
Terrestrial Broadcaster
Cable Subscribers
Analog STB
QAM STB
DTV RCVR (HDTV)
These Go Black
Picture OK but EPG, Data Overlays and other Cable Services Undefined


QAM Remodulated Onto Cable System ?
Efficient Use of Cable Spectrum
Cable Head End
8VSB
Terrestrial Broadcaster
Cable Subscribers
QAM STB
Analog STB
Analog or DTV RCVR
Analog TV RCVR
Picture fine but only NSTC or S-Video Resolution
These Go Black


QAM Remodulated Onto Cable System ?
Efficient Use of Cable Spectrum
Cable Head End
8VSB
Terrestrial Broadcaster
Cable Subscribers
QAM STB
Analog STB
Analog or DTV RCVR
1394
These Go Black
Copy Protection, EPG, Cable Services Uncertainty
DTV RCVR (HDTV)


Cable
Head
End
Cable System: QAM or 8VSB Transmission
2) ATSC &
MPAA Air
Encryption
3) Cable Conditional Access
System
Cable
Subscribers
ASTB
4) Consumer Pay-Per-View &
Billing System
1) Content
Watermarking
By Original
Owner
ASTB Interconnect:
1394, NTSC, S-
Video, VGA, C.A.V.
5) Consumer Copy Protection:5C,
CPTWG, Macrovision, Other?
HDTV
RCVR

Alternate DTV Spectral Model



The Remodulation Scenario